Welcome to STN International! Enter x:x

LOGINID: SSPTANXR1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
* * * * * * * * * *
                     Welcome to STN International
NEWS
                 Web Page for STN Seminar Schedule - N. America
NEWS
         AUG 06
                 CAS REGISTRY enhanced with new experimental property tags
NEWS
      3
         AUG 06
                 FSTA enhanced with new thesaurus edition
NEWS
         AUG 13
                 CA/CAplus enhanced with additional kind codes for granted
                 patents
NEWS
         AUG 20
                 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS
         AUG 27
                 Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
NEWS
         AUG 27
                 USPATOLD now available on STN
                 CAS REGISTRY enhanced with additional experimental
NEWS
         AUG 28
                 spectral property data
NEWS
         SEP 07
                 STN AnaVist, Version 2.0, now available with Derwent
                 World Patents Index
         SEP 13
NEWS 10
                 FORIS renamed to SOFIS
NEWS 11
         SEP 13
                 INPADOCDB enhanced with monthly SDI frequency
NEWS 12
         SEP 17
                 CA/CAplus enhanced with printed CA page images from
                 1967-1998
NEWS 13
         SEP 17
                 CAplus coverage extended to include traditional medicine
                 patents
NEWS 14 SEP 24
                 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 15
         OCT 02
                 CA/CAplus enhanced with pre-1907 records from Chemisches
                 Zentralblatt
NEWS 16 OCT 19
                 BEILSTEIN updated with new compounds
NEWS 17
         NOV 15
                 Derwent Indian patent publication number format enhanced
NEWS 18 NOV 19 WPIX enhanced with XML display format
NEWS 19 NOV 30 ICSD reloaded with enhancements
NEWS 20 DEC 04 LINPADOCDB now available on STN
NEWS 21 DEC 14 BEILSTEIN pricing structure to change
NEWS 22 DEC 17 USPATOLD added to additional database clusters
NEWS 23
         DEC 17
                 IMSDRUGCONF removed from database clusters and STN
         DEC 17
NEWS 24
                 DGENE now includes more than 10 million sequences
NEWS 25
         DEC 17
                 TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
         DEC 17
NEWS 26
                 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 27
         DEC 17
                 CA/CAplus enhanced with new custom IPC display formats
NEWS 28
         DEC 17
                 STN Viewer enhanced with full-text patent content
                  from USPATOLD
NEWS 29
         JAN 02
                 STN pricing information for 2008 now available
NEWS 30
         JAN 16
                 CAS patent coverage enhanced to include exemplified
                 prophetic substances
NEWS 31
         JAN 28
                 USPATFULL, USPAT2, and USPATOLD enhanced with new
                 custom IPC display formats
NEWS 32
         JAN 28
                 MARPAT searching enhanced
NEWS 33
         JAN 28
                 USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS 34
         JAN 28
                 TOXCENTER enhanced with reloaded MEDLINE segment
```

NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements NEWS 36 FEB 08 STN Express, Version 8.3, now available

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 18:57:40 ON 19 FEB 2008

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:58:17 ON 19 FEB 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 FEB 2008 HIGHEST RN 1004360-55-7 DICTIONARY FILE UPDATES: 18 FEB 2008 HIGHEST RN 1004360-55-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

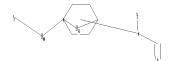
Please note that search-term pricing does apply when conducting SmartSELECT searches.

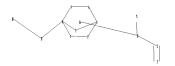
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\10518714c.str



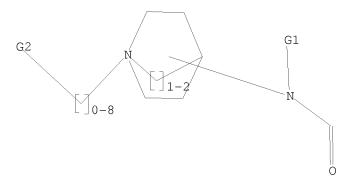


```
chain nodes :
11 12 13 15 17 18
ring nodes :
1 2 3 4 5 6 7
chain bonds :
4-17 11-12 11-15 12-13 17-18
ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6
exact/norm bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 4-7 \quad 4-17 \quad 5-6 \quad 11-12 \quad 11-15 \quad 12-13 \quad 17-18
exact bonds :
1-7
isolated ring systems :
containing 1 :
G1:H,Ak
G2:C,O,S,N
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 11:CLASS 12:CLASS
13:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
```

=> d 11

L1 HAS NO ANSWERS

L1



G1 H, Ak G2 C, O, S, N

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 18:58:37 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 90592 TO ITERATE

2.2% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 1793956 TO 1829724 PROJECTED ANSWERS: 0 TO

0 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 18:58:42 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1812585 TO ITERATE

54.1% PROCESSED 981134 ITERATIONS

173 ANSWERS

173 ANSWERS

0 ANSWERS

55.2% PROCESSED 1000000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.24

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 1812585 TO 1812585 PROJECTED ANSWERS: 260 TO 366

L3 173 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 178.82 179.03

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 18:59:16 ON 19 FEB 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 19 Feb 2008 VOL 148 ISS 8 FILE LAST UPDATED: 18 Feb 2008 (20080218/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 13 full L4 6 L3

=> d ibib abs hitstr tot

ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN T.4

2007:849820 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 147:211644

TITLE: 3-amidoquinuclidine derivatives: synthesis and

interaction with butyrylcholinesterase

Odzak, Renata; Primozic, Ines; Tomic, Srdanka AUTHOR(S):

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, University of Zagreb, Zagreb, HR-10000, Croatia

Croatica Chemica Acta (2007), 80(1), 101-107

CODEN: CCACAA; ISSN: 0011-1643

PUBLISHER: Croatian Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:211644

GΙ

SOURCE:

ΙI Ι

AΒ Racemates as well as (R)- and (S)-enantiomers of 3-pivalamidoquinuclidine I (R = Me3C) and 3-acetamidoquinuclidine I (R = Me) were prepared Their quaternary racemic and enantiomerically pure N-benzyl derivs. II (R = Me3C, Me) were synthesized as well. I and II were tested as substrates and inhibitors of butyrylcholinesterase (BChE) from horse serum (EC 3.1.1.8). No hydrolysis was observed under the exptl. conditions applied. On the contrary, inhibition of BChE by (R) - and (S) -enantiomers of II (R =Me3C) was observed II (R = Me3C) with Ki = $41.57 \, \mu mol \, dm-3$ was a 3-fold more potent inhibitor than the (R)-enantiomer. On the other hand, preliminary results indicated that both enantiomers of II (R = Me) may possibly be inhibitors as well as activators depending on the concns. of benzoylcholine (BzCh) used as a substrate of BChE.

ΙT 945216-82-0P 945216-83-1P 945216-85-3P 945216-86-4P

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of racemic and enantiopure quaternary Nbenzylamidoquinuclidines from 3-aminoquinuclidine and acid anhydrides and their interaction with butyrylcholinesterase)

945216-82-0 CAPLUS RN

1-Azoniabicyclo[2.2.2]octane, 3-[(2,2-dimethyl-1-oxopropyl)amino]-1-CN (phenylmethyl) -, bromide (1:1), (3R) - (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 945216-83-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(2,2-dimethyl-1-oxopropyl)amino]-1-(phenylmethyl)-, bromide (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● Br-

RN 945216-85-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(acetylamino)-1-(phenylmethyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

• Br-

RN 945216-86-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(acetylamino)-1-(phenylmethyl)-, bromide (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT 945216-81-9P 945216-84-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of racemic and enantiopure quaternary N-benzylamidoquinuclidines from 3-aminoquinuclidine and acid anhydrides and their interaction with butyrylcholinesterase)

RN 945216-81-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(2,2-dimethyl-1-oxopropyl)amino]-1-(phenylmethyl)-, bromide (1:1) (CA INDEX NAME)

• Br-

RN 945216-84-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(acetylamino)-1-(phenylmethyl)-, bromide (1:1) (CA INDEX NAME)

• Br-

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:384736 CAPLUS

DOCUMENT NUMBER: 146:402148

TITLE: Preparation of azabicyclic derivatives of indazoles,

benzothiazoles, benzoisothiazoles, benzisoxazoles,

pyrazolopyridines, isothiazolopyridines for therapeutic use as α 7-nACh receptor activators Schumacher, Richard; Danca, Mihaela Diana; Ma, Jianguo; Herbert, Brian; Nguyen, Truc Minh; Xie,

Wenge; Tehim, Ashok

PATENT ASSIGNEE(S): Memory Pharmaceuticals Corporation, USA

SOURCE: PCT Int. Appl., 283pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

| PATENT NO. | | | | | KIND DATE | | | APPLICATION NO. | | | | | | | DATE | | | |
|------------------------|---------|---------------|-----|-----|-----------|-------------|----------|-----------------|-------|-----------------|--------|----------|---------|------|------------|----------|-----|--|
| | WO 2007 | WO 2007038367 | | | | | 20070405 | | | WO 2 | 2006-1 | US37 | 142 | | 20060922 | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | |
| | | GE, | GH, | GM, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KM, | KN, | KP, | |
| | | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | |
| | | MW, | MX, | MY, | ΜZ, | NA, | NG, | NΙ, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RS, | |
| | | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ΤJ, | TM, | TN, | TR, | TT, | TZ, | |
| | | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | ΤG, | BW, | GH, | |
| | | GM, | KΕ, | LS, | MW, | ${ m MZ}$, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | ΑZ, | BY, | |
| | | KG, | KΖ, | MD, | RU, | ΤJ, | TM | | | | | | | | | | | |
| US 2007078147 | | | | | | | 2007 | 0405 | | US 2006-525213 | | | | | | 20060922 | | |
| PRIORITY APPLN. INFO.: | | | | | | | | | | US 2005-719552P | | | | | P 20050923 | | | |
| | | | | | | | | US 2 | 2006- | 7918 | 81P | | P 2 | 0060 | 414 | | | |
| | | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 146:402148

GΙ

AB N-azabicyclo[2.2.2]octyl-heterocyclic amide derivs., such as I [R = heterocyclyl, such as those cited in the title], were prepared as $\alpha 7$ nicotinic acetylcholine receptor ($\alpha 7$ -nAChR) ligands which activate or enhance defective or malfunctioning nAChR activity, especially of the brain, and are useful in the treatment of psychotic disease, neurodegenerative disease and conditions of memory and/or cognition impairment. These diseases and conditions may include schizophrenia, anxiety, mania, depression, manic depression, Tourette's syndrome, Parkinson's disease, Huntington's disease, Alzheimer's disease, Lewy body dementia, amyotrophic lateral sclerosis, memory impairment, memory loss, cognition deficit,

attention deficit, attention deficit hyperactivity disorder (ADHD) and mild cognitive impairment due to aging, Alzheimer's disease, schizophrenia, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob disease, depression, aging, head trauma, stroke, CNS hypoxia, cerebral senility, multiinfarct dementia, HIV and/or cardiovascular disease. Theses diseases may further include alc. and nicotine addiction, pain, jet lag, obesity, diabetes, vascular dementia (VaD), age-associated cognitive decline (AACD), amnesia associated with open-heart-surgery, cardiac arrest, general anesthesia, memory deficits from exposure to anesthetic agents, sleep deprivation induced cognitive impairment, chronic fatigue syndrome, narcolepsy, AIDS-related dementia, epilepsy-related cognitive impairment, Down's syndrome, alcoholism related dementia, drug/substance induced memory impairments and dementia puglistica (boxer syndrome). Thus, amide II was prepared via an amidation reaction of (3S)-3-aminoquinuclidine hydrochloride with Et 6-bromobenzisoxazole-3-carboxylate in EtOH using N,Ndiisopropylethylamine. The prepared amides were assayed for $\alpha 7$ -nAChR binding affinity.

IT 932705-66-3P 932705-69-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of azabicyclic derivs. of indazoles, benzothiazoles, benzoisothiazoles, benzisoxazoles, pyrazolopyridines, isothiazolopyridines for therapeutic use as $\alpha 7\text{-nACh}$ receptor activators)

RN 932705-66-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[6-(cyclopropylmethoxy)-1,2-benzisothiazol-3-yl]carbonyl]amino]-1-(cyclopropylmethyl)-, bromide (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

● Br-

RN 932705-69-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(5-hydroxy-1,2-benzisothiazol-3-yl)carbonyl]amino]-1-methyl-, iodide (1:1), (3S)- (CA INDEX NAME)

• I-

IT 932703-96-3P 932704-00-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of azabicyclic derivs. of indazoles, benzothiazoles, benzoisothiazoles, benzisoxazoles, pyrazolopyridines, isothiazolopyridines for therapeutic use as $\alpha7\text{-nACh}$ receptor activators)

RN 932703-96-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(5-hydroxy-1,2-benzisothiazol-3-yl)carbonyl]amino]-1-methyl-, formate (1:1), (3S)- (CA INDEX NAME)

CM 1

CRN 932703-95-2 CMF C16 H20 N3 O2 S

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2

O== CH-O-

RN 932704-00-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[6-(cyclopropylmethoxy)-1,2-benzisothiazol-3-yl]carbonyl]amino]-1-(cyclopropylmethyl)-, formate (1:1), (3S)- (CA INDEX NAME)

CM 1

CRN 932703-99-6 CMF C23 H30 N3 O2 S

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2

O=== CH-O-

IT 932705-49-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of azabicyclic derivs. of indazoles, benzothiazoles, benzoisothiazoles, benzisoxazoles, pyrazolopyridines, isothiazolopyridines for therapeutic use as α 7-nACh receptor activators)

RN 932705-49-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(chloromethyl)-3-[(1H-indazol-3-ylcarbonyl)amino]-, chloride (1:1), (3S)- (CA INDEX NAME)

● Cl-

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1091765 CAPLUS

DOCUMENT NUMBER: 146:27960

TITLE: Synthesis of new N-quaternary-3-

benzamidoquinuclidinium salts Odzak, Renata; Tomic, Srdjanka

AUTHOR(S): Odzak, Renata; Tomic, Srdjanka
CORPORATE SOURCE: Department of Chemistry, Faculty of Natu

CORPORATE SOURCE: Department of Chemistry, Faculty of Natural Sciences,
Mathematics and Education, University of Split, Split,

21 000, Croatia

SOURCE: Molecules (2006), 11(9), 726-730

CODEN: MOLEFW; ISSN: 1420-3049

URL: http://www.mdpi.org/molecules/papers/11090726.pdf

PUBLISHER: Molecular Diversity Preservation International

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:27960

GΙ

AB The synthesis of racemic and enantiomerically pure N-p-methylbenzyl and N-p-chlorobenzylbenzamidoquinuclidinium bromides, e.g., I, is described. These compds. were prepared from racemic or enantiomerically pure 3-benzamidoquinuclidines using the appropriate quaternization reagents: p-methyl-benzyl bromide and p-chlorobenzyl bromide.

IT 915207-68-0P 915207-69-1P 915207-70-4P

915207-71-5P 915207-72-6P 915207-73-7P

Ι

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of racemic/enantiopure quaternary benzylbenzamidoquinuclidinium derivs. by quaternization of racemic/enantiopure benzamidoquinuclidines with methyl/chlorobenzyl bromides)

RN 915207-68-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-methylphenyl)methyl]-, bromide (1:1) (CA INDEX NAME)

RN 915207-69-1 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-methylphenyl)methyl], bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

• Br-

RN 915207-70-4 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-methylphenyl)methyl], bromide (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 915207-71-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-chlorophenyl)methyl]-, bromide (1:1) (CA INDEX NAME)

• Br-

RN 915207-72-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-chlorophenyl)methyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 915207-73-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-[(4-chlorophenyl)methyl]-, bromide (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

• Br-

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:285227 CAPLUS

DOCUMENT NUMBER: 144:480386

TITLE: 3-Amidoquinuclidine derivatives: Synthesis of

compounds and inhibition of butyrylcholinesterase

AUTHOR(S): Odzak, Renata; Tomic, Srdanka

CORPORATE SOURCE: Laboratory of Organic Chemistry, Department of

Chemistry, Faculty of Science, University of Zagreb,

Zagreb, HR-10 000, Croatia

SOURCE: Bioorganic Chemistry (2006), 34(2), 90-98

CODEN: BOCMBM; ISSN: 0045-2068

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:480386

AB The synthesis of racemic and enantiomerically pure 3-butanamidoquinuclidines ((±)-Bu, (R)-Bu and (S)-Bu), (1-3) and 3-benzamidoquinuclidines ((±)-Bz, (R)-Bz, and (S)-Bz), (4-6) is described. The N-quaternary derivs., N-benzyl-3-butanamidoquinuclidinium bromides ((±)-BnlBu, (R)-BnlBu and (S)-BnlBu), (7-9) and N-benzyl-3-benzamidoquinuclidinium bromides ((±)-BnlBz, (R)-BnlBz and (S)-BnlBz), (10-12) were subsequently synthesized. The interaction of the four enantiomerically pure quaternary derivs. with horse serum butyrylcholinesterase (BChE) was tested. All tested compds. inhibited the enzyme. The best inhibitor of the enzyme was (S)-BnlBz with a K i = 3.7 μM. The inhibitor potency decreases in order (S)-BnlBz > (R)-BnlBz » (R)-BnlBu > (S)-BnlBu.

IT 887150-91-6P 887150-92-7P 887150-93-8P 887150-94-9P 887150-95-0P 887150-96-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amidoquinuclidine derivs. as inhibitors of butyrylcholinesterase) 887150-91-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(1-oxobutyl)amino]-1-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)

RN

• Br-

RN 887150-92-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(1-oxobutyl)amino]-1-(phenylmethyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 887150-93-8 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[(1-oxobutyl)amino]-1-(phenylmethyl)-, bromide, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

• Br-

• Br-

RN 887150-95-0 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-(phenylmethyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 887150-96-1 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-(benzoylamino)-1-(phenylmethyl)-, bromide, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

• Br-

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:41467 CAPLUS

DOCUMENT NUMBER: 140:94180

TITLE: Preparation of new quinuclidine amide derivatives for

therapeutic uses as antagonists of M3 muscarinic

receptors

INVENTOR(S):
Prat Quinones, Maria

PATENT ASSIGNEE(S): Almirall Prodesfarma S.A., Spain

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA. | | | | | | | DATE | | APPLICATION NO. | | | | | | | : | DATE | | | |
|---------|---|-----|-----|-------------|-------------|---------------|----------------|-----------------|-----------------|---|----------------|----------|----------|----------|----------|----------|----------|-----|--|--|
| WO | | | | | | _ | 20040115 | | WO 2003-EP6708 | | | | | | | 20030625 | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | ΑZ, | BA, | BE | 3, B | 3, | BR, | BY, | BΖ, | CA | , СН, | CN, | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | ΕC | C, E | Ξ, | ES, | FΙ, | GB, | GD | , GE, | GH, | | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE | Ξ, Κ | Э, | KP, | KR, | KΖ, | LC | , LK, | LR, | | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | M | ۷, M | V, | MX, | MZ, | NΙ, | ИО | , NZ, | OM, | | |
| | | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE | E, SO | Э, | SK, | SL, | ΤJ, | TM | , TN, | TR, | | |
| | | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | JY | J, Z | Α, | ZM, | ZW | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ | Z, T | Ζ, | UG, | ZM, | ZW, | AM | , AZ, | BY, | | |
| | | | | | | | | | | | | | | | | | , EE, | | | |
| | | FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC | C, NI | , | PT, | RO, | SE, | SI | , SK, | TR, | | |
| | | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GÇ | 2, GI | N, . | ML, | MR, | ΝE, | SN | , TD, | TG | | |
| ES | ES 2204295 | | | | A1 | ES 2002-1539 | | | | | | 20020702 | | | | | | | | |
| ES | ES 2204295 | | | | В1 | | | | | | | | | | | | | | | |
| CA | | | | | | | | CA 2003-2492535 | | | | | | | | | | | | |
| AU | AU 2003242757 | | | A1 20040123 | | | | AU 2003-242757 | | | | | | | 20030625 | | | | | |
| EP | IP 1519933 | | | A1 20050406 | | | EP 2003-762514 | | | | | | | 20030625 | | | | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | R, I | Γ, | LI, | LU, | NL, | SE | , MC, | PT, | | |
| | | | | | | | RO, | MK, | CY, | ΑI | ., TI | З, | BG, | CZ, | EE, | HU | , SK | | | |
| BR | BR 2003012216 CN 1678610 JP 2005533826 NZ 537341 | | | | Α | BR 2003-12216 | | | | | | | 20030625 | | | | | | | |
| CN | CN 1678610 | | | | | A 20051005 | | | | | 2003 | 3-8 | | 20030625 | | | | | | |
| JP | JP 2005533826 | | | | | T 20051110 | | | | JP 2004-518575 | | | | | | | 20030625 | | | |
| NZ | NZ 537341 | | | | | A 20060428 | | | | | NZ 2003-537341 | | | | | | | | | |
| RU | RU 2314306 | | | | | C2 20080110 | | | | RU 2005-102585 | | | | | | | | | | |
| MX | MX 2004PA12271 | | | | | A 20050408 | | | | MX 2004-PA12271 | | | | | | 20041207 | | | | |
| ZA | ZA 2004010404 | | | | | A 200509 | | | ZA 2004-10404 | | | | | | 20041223 | | | | | |
| IN | IN 2004DN04140 | | | | | | 2006 | 1229 | | | | | N41 | 40 | | | 20041 | 227 | | |
| NO | | | | 7 20050404 | | | | NO 2005-164 | | | | | | 20050112 | | | | | | |
| US | US 2006167042 | | | | A1 20060727 | | | 0727 | | US 2005-104 US 2005-518714 ES 2002-1539 | | | | | | 20050801 | | | | |
| RIORIT | IORITY APPLN. INFO.: | | | | | | | | | ES | 2002 | 2-1 | 539 | | | Α . | 20020 | 702 | | |
| | | | | | | | | | | WO | 2003 | 3-E | P67 | 08 | | W . | 20030 | 625 | | |
| THER SO | HER SOURCE(S): | | | | | | 140: | 94180 | С | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 140:94180

AB N-quinuclidinyl amides, such as I [R1 = H, alkyl; R3 = furyl, thienyl, phenyl; R4 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylmethyl, Ph,

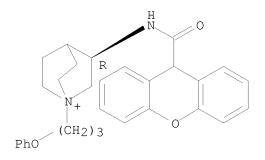
prepared in 63.1% yield via an amidation reaction of (3R)-aminoquinuclidine with 2-phenylhexanoic acid in DMF and CHCl3. The prepared N-quinuclidinyl amides were assayed for human muscarinic receptor binding activity and for effect on bronchial response to i.v. acetylcholine challenge in quinea pigs. Tablet, liquid inhalant, powder inhalant, and inhalation aerosol pharmaceutical compns. of the amides were presented. 644468-34-8P 644468-36-0P 644468-39-3P 644468-42-8P 644468-45-1P 644468-46-2P 644468-48-4P 644468-50-8P 644468-52-0P 644468-53-1P 644468-55-3P 644468-56-4P 644468-57-5P 644468-59-7P 644468-60-0P 644468-62-2P 644468-72-4P 644468-73-5P 644468-75-7P 644468-77-9P 644468-79-1P 644468-80-4P 644468-82-6P 644468-84-8P 644468-85-9P 644468-86-0P 644468-87-1P 644468-88-2P 644468-89-3P 644468-90-6P 644468-91-7P 644468-92-8P 644468-93-9P 644468-94-0P 644468-95-1P 644468-96-2P 644468-97-3P 644468-99-5P 644469-01-2P 644469-03-4P 644469-05-6P 644469-07-8P 644469-08-9P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (preparation of N-quinuclidinyl amides for use in pharmaceutical compns. as M3 muscarinic receptor antagonists) 644468-34-8 CAPLUS RN 1-Azoniabicyclo[2.2.2]octane, 1-(3-phenoxypropy1)-3-[(9H-xanthen-9-CN ylcarbonyl)amino]-, bromide, (3R)- (9CI) (CA INDEX NAME)

benzyl, phenethyl, furyl, thienyl; R5 = H, OH, Me, CH2OH], were prepared for use in therapy as antagonists of M3 muscarinic receptors. These amides

amelioration by antagonism of M3 muscarinic receptors. Thus, amide II was

are claimed for use in the treatment of respiratory, urol. or gastrointestinal pathol. conditions and diseases susceptible to

Absolute stereochemistry.



• Br-

RN 644468-36-0 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-methyl-, bromide (9CI) (CA INDEX NAME)

RN 644468-39-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(cyclohexylmethyl)-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-38-2 CMF C28 H35 N2 O2

Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-42-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-[3-(3-hydroxyphenoxy)propyl]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-45-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-methyl-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 644468-46-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-[3-(3-

RN 644468-48-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-methyl-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-47-3 CMF C18 H23 N2 O2 S2

Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-50-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-(2-propenyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-49-5 CMF C20 H25 N2 O2 S2

Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-52-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-heptyl-3-[(hydroxydi-2-thienylacetyl)amino]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-51-9 CMF C24 H35 N2 O2 S2

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-53-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-(3-phenylpropyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-55-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-[(2E)-3-phenyl-2-propenyl]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-54-2 CMF C26 H29 N2 O2 S2

Absolute stereochemistry. Double bond geometry as shown.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-56-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-(2-phenoxyethyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-57-5 CAPLUS CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-(3-

phenoxypropyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-59-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-[2-(phenylmethoxy)ethyl]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-58-6

CMF C26 H31 N2 O3 S2

Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-60-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-[3-(2-thienyl)propyl]-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-62-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(hydroxydi-2-thienylacetyl)amino]-1-(3-phenoxypropyl)-, bromide, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-72-4 CAPLUS

1-Azoniabicyclo[2.2.2]octane, 1-methyl-3-[(9H-xanthen-9-ylcarbonyl)amino], bromide (9CI) (CA INDEX NAME)

RN 644468-73-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(3-phenoxypropyl)-3-[(9H-xanthen-9-ylcarbonyl)amino]-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 644468-75-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-propenyl)-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-74-6 CMF C24 H27 N2 O2

CM 2

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-77-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-heptyl-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-76-8 CMF C28 H37 N2 O2

Absolute stereochemistry.

CM

CRN 14477-72-6 CMF C2 F3 O2

2

$$F-C-CO_2-F$$

RN 644468-79-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(3-cyclohexylpropyl)-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-78-0 CMF C30 H39 N2 O2 Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

$$F - \begin{bmatrix} F \\ C - CO_2 - \\ F \end{bmatrix}$$

RN 644468-80-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(3-phenoxypropyl)-3-[(9H-xanthen-9-ylcarbonyl)amino]-, bromide, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-82-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]propyl]-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-81-5 CMF C34 H39 N2 O3 Absolute stereochemistry.

CM 2

CRN 14477-72-6 CMF C2 F3 O2

$${\tiny \begin{array}{c} F \\ | \\ C - CO_2 - \\ | \\ F \end{array}}$$

RN 644468-84-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[5-(2,6-dimethylphenoxy)pentyl]-3-[(9H-xanthen-9-ylcarbonyl)amino]-, (3S)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 644468-83-7 CMF C34 H41 N2 O3

$$\begin{array}{c} H \\ N \\ O \\ \end{array}$$

CRN 14477-72-6 CMF C2 F3 O2

RN 644468-85-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-(3-phenoxypropyl)-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 644468-86-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(2-benzothiazolyloxy)propyl]-3-[[2-(2-furanyl)-2-hydroxy-1-oxo-3-pentynyl]amino]-, chloride, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● C1-

RN 644468-87-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[2-(2-furanyl)-2-hydroxy-1-oxo-3-pentynyl]amino]-1-[3-(1-naphthalenyloxy)propyl]-, chloride, (3R)- (9CI) (CA INDEX NAME)

● C1-

RN 644468-88-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(1,3-benzodioxol-5-yloxy)propyl]-3-[[2-(2-furanyl)-2-hydroxy-1-oxo-3-pentynyl]amino]-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-89-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(2S)-cyclopentylhydroxy-2-thienylacetyl]amino]-1-(4,4,4-trifluorobutyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

RN 644468-90-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(2S)-cyclopentylhydroxy-2-thienylacetyl]amino]-1-(2-hydroxyethyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-91-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[4-(acetyloxy)butyl]-3-[[(5-bromo-2-thienyl)(4-fluoro-3-methylphenyl)hydroxyacetyl]amino]-, bromide, (3R)-(9CI) (CA INDEX NAME)

RN 644468-92-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(5-bromo-2-thienyl)(4-fluoro-3-methylphenyl)hydroxyacetyl]amino]-1-(5-ethoxy-5-oxopentyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-93-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(3-cyanopropyl)-3-[[2-hydroxy-4-(4-methoxyphenyl)-1-oxo-2-(2-thienyl)butyl]amino]-, bromide, (3R)- (9CI) (CA INDEX NAME)

RN 644468-94-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[2-(1,3-benzodioxol-2-yl)ethyl]-3-[[2-hydroxy-4-(4-methoxyphenyl)-1-oxo-2-(2-thienyl)butyl]amino]-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644468-95-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-[3-(methylphenylamino)propyl]-, chloride, (3R)- (9CI) (CA INDEX NAME)

RN 644468-96-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[methyl(9H-xanthen-9-ylcarbonyl)amino]-1-[3-(1H-pyrrol-1-yl)propyl]-, bromide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• Br-

RN 644468-97-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-([1,1'-biphenyl]-4-yloxy)propyl]-3[methyl(9H-xanthen-9-ylcarbonyl)amino]-, chloride, (3R)- (9CI) (CA INDEX NAME)

RN 644468-99-5 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-[2-(aminocarbonyl)phenoxy]propyl]-3[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-, (3R)-, formate (salt) (9CI)
(CA INDEX NAME)

CM 1

CRN 644468-98-4 CMF C31 H34 N3 O4

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2

```
O== CH-O-
```

RN 644469-01-2 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 1-[4-(4-fluorophenyl)-4-oxobutyl]-3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-, (3R)-, formate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 644469-00-1 CMF C31 H32 F N2 O3

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2

O = CH - O -

RN 644469-03-4 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-[3-(phenylthio)propyl]-, (3R)-, formate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 644469-02-3 CMF C30 H33 N2 O2 S

CM 2

CRN 71-47-6 CMF C H O2

O = CH - O -

RN 644469-05-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(2S)-cyclopentylhydroxy-2-thienylacetyl]amino]-1-(2-ethoxyethyl)-, (3R)-, formate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 644469-04-5 CMF C22 H35 N2 O3 S

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2 O = CH - O -

RN 644469-07-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(acetylthio)propyl]-3-[[(5-bromo-2-thienyl)(4-fluoro-3-methylphenyl)hydroxyacetyl]amino]-, (3R)-, formate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 644469-06-7 CMF C25 H31 Br F N2 O3 S2

Absolute stereochemistry.

CM 2

CRN 71-47-6 CMF C H O2

O== CH-O-

RN 644469-08-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[(di-2-thienylacetyl)amino]-1-(3-phenoxypropyl)-, bromide, (3R)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:991508 CAPLUS

DOCUMENT NUMBER: 140:42022

TITLE: Preparation of 2-heteroaryl carboxamides for the

treatment and/or the prophylaxis of diseases effecting

memory

INVENTOR(S): Luithle, Joachim; Boess, Frank-Gerhard; Erb,

Christina; Hafner, Frank-Thorsten; Schnizler, Katrin;

Flessner, Timo; Van Kampen, Marja; Van Der Staay,

Franz-Josef

PATENT ASSIGNEE(S): Bayer Healthcare A.-G., Germany

SOURCE: PCT Int. Appl., 239 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA | PATENT NO. | | | | | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | | |
|----------------|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------------------|-------------------|----------------------|---|------------------------------|------------------------------|------------|---------------------------------------|---|--------------------------|--|
| | | | | | | WO 2003-EP5735 | | | | | | | | | | | | |
| | ₩: | CO, GM, | CR, HR, | CU, HU, | CZ, ID, | DE, | DK, IN, | DM, IS, | DZ, JP, | EC KE | , BG, , EE, , KG, , MW, | ES, KP, | FI, KR, | GB, KZ, | GD, LC, | GE, LK, | GH, LR, | |
| | | | | | | | | | | | , SK, , ZM, | | TJ, | TM, | TN, | TR, | TT, | |
| | RW: | GH, KG, FI, | GM, KZ, FR, | KE, MD, GB, | LS, RU, GR, | MW, TJ, HU, | MZ, TM, IE, | SD, AT, IT, | SL, BE, LU, | SZ BG MC | , TZ, , CH, , NL, | UG, CY, PT, | CZ, RO, | DE, SE, | DK, SI, | EE, SK, | ES, TR, | |
| DE | • | | | | • | | | | | DE 2002-10257078 | | | | | · · · · · · · · · · · · · · · · · · · | | | |
| DE | 10257537 | | | | A1 | A1 20040701 | | | | DE 2002-10257537 | | | | | 20021210 | | | |
| | | | | A1 20040304 | | | | DE 2003-10305922 | | | | | 20030213 | | | | | |
| | | | | | | | | | | CA 2003-2488761 | | | | | | | | |
| | | | | | | | | | AU 2003-238450 | | | | | | | | | |
| | | | | | | | | | EP 2003-732517 | | | | | | 2 | 20030 | 602 | |
| EP | 1515 | | | | B1 | | | | O.D. | O.D. | T. (11) | | T TT | N.T.T. | ОП | MO | ъш | |
| | K: | | | | | | | | | | , IT, , TR, | | | • | • | | Ρ1, | |
| BD | 2003 | | | | | | | | | | | | | | | | 602 | |
| | | | | | | | | BR 2003-12446 CN 2003-818851 | | | | | | | | | | |
| | JP 2005533052 | | | | Т | 20050320 | | | JP 2004-511297 | | | | | | | | | |
| | AT 344262 | | | | T | | 2006 | 1115 | | - | 2003- | - | - | | | | | |
| ES | ES 2276072 | | | | | | | | | | 2003- | | | | | | | |
| ZA | ZA 2004009883 | | | | | | | | | | 2004- | | | | | 20041 | | |
| MX 2004PA12439 | | | | A | | 2005 | 0419 | MX 2004-PA12439 | | | | | 20041209 | | | | | |
| NO 2005000063 | | | | A | | 2005 | 20050106 | | NO 2005-63 | | | | 20050106 | | | | | |
| US | US 2006160877 | | | | A1 | | | | | US . | JS 2006-516777 | | | | | | | |
| RIORIT | | | | | | | | - | | DE . DE . DE . | 2002- 2002- 2002- 2003- 2003- | 1022 1025 1025 1030 | 5536 7078 7537 5922 | | A 2 A 2 A 2 A 2 | 20020 20021 20021 20030 20030 | 610 206 210 213 | |
| THER SO | FR SOURCE(S). | | | | | ЭΔТ | 140 • | 4202 | | | _ , , , | ' ' | | | - | | | |

OTHER SOURCE(S): MARPAT 140:42022

GI

$$R^{1}R^{2}N$$
 A
 B
 ER^{4}
 OH
 OH

AΒ The invention relates to the novel 2-heteroaryl carboxamides I [R1 = 1-azabicyclo[2.2.2]oct-3-yl, (optionally replaced via the nitrogen atom by a group selected from the family C1-4-alkyl, benzyl and oxy); R2 = H, C1-6-alkyl; R3 = H, halogen, C1-6-alkyl; R4 = H, halogen, CN, NH2, CF3, OCF3, C1-6-alkyl, C1-6-alkylcarbonyl, C1-6-alkylamino, CHO, CO2H, C1-6-alkoxy, C1-6-alkoxycarbonyl, C1-6-alkylthio, C1-6-alkylcarbonylamino, C1-6-alkylaminocarbonyl, C1-4-alkylsulfonylamino, C3-8cycloalkylcarbonylamino, C3-6-cycloalkylaminocarbonyl, pyrrolyl, C1-6-alkylaminocarbonyl, heterocyclylcarbonyl, heterocyclylcarbonylamino, heteroarylcarbonylamino, OH, Ph, heterocyclyl; A = O, S; the ring B = benzo or pyrido (optionally replaced by the groups from the family of halogen, cyano, formyl, trifluoromethyl, trifluoromethoxy, nitro, amino, C1-6-alkyl and C1-6-alkoxy); E = C:C, aryl and heteroaryl, (wherein aryl and heteroaryl may be replaced by groups from the family of halogen, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, C1-6-alkoxy and C1-6-alkyl)] and to the solvates, salts or solvates of salts of said compds. Thus, carboxamide II was prepared from carboxamide III via coupling with 2-(HOCH2)C6H4B(OH)2 in aqueous DMF containing NaOH and catalytic [1,1'-bis(diphenylphosphino)ferrocene]palladium(II) chloride. The invention also relates to the use of said compds. in the production of drugs for and treatment and/or the prophylaxis of diseases for improving perception, power of concentration, learning power and/or retentiveness of memory. The affinity of I for 7α -nicotinic acetylcholine receptor (via inhibition of [3H]Methyllycaconitine binding in rat brain membranes) was determined [Ki = 1.6 nM {I·HCl; R1 = (R)-1-azabicyclo[2.2.2]oct-3-yl, R2 = R3 = H, A = S, B = benzo; 7-ER4 = 4-(hydroxymethyl)phenyl}; Ki = <1 nM $\{I \cdot 2HCl; R1 = (R) - 1 - azabicyclo[2.2.2] oct - 3 - yl, R2 = R3 = H, A$ = S, B = benzo; $7-ER4 = 2-(aminomethyl)phenyl}; Ki = <0.1 nM$ ${I \cdot HC1; R1 = (R) - 1 - azabicyclo[2.2.2]oct - 3 - yl, R2 = R3 = H, A = S, B}$ = benzo; 7-ER4 = 3-carboxyphenyl; Ki = 3 nM {I·HCl; R1 = (R)-1-azabicyclo[2.2.2]oct-3-yl;, R2 = R3 = H, A = O, B = benzo; 7-ER4 = COMBAN = C3-(cyclopropylaminocarbonyl)phenyl}]. 634905-02-5P 634905-03-6P 634905-04-7P ΤТ

III

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-heteroaryl carboxamides for the treatment and/or the prophylaxis of diseases effecting memory and perception)

RN 634905-02-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[7-(2-methoxyphenyl)-2-benzofuranyl]carbonyl]amino]-1-methyl-, chloride, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● C1-

RN 634905-03-6 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[7-(2-methoxyphenyl)-2-benzofuranyl]carbonyl]amino]-1-(phenylmethyl)-, bromide, (3R)- (9CI) (CFINDEX NAME)

RN 634905-04-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[7-(2-methoxyphenyl)-2-benzofuranyl]carbonyl]methylamino]-1-methyl-, chloride, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● C1-

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 18:57:40 ON 19 FEB 2008)

FILE 'REGISTRY' ENTERED AT 18:58:17 ON 19 FEB 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 173 S L1 FULL

FILE 'CAPLUS' ENTERED AT 18:59:16 ON 19 FEB 2008

L4 6 S L3 FULL

=> log y

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
42.30
221.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION

CA SUBSCRIBER PRICE -4.80 -4.80

STN INTERNATIONAL LOGOFF AT 19:11:27 ON 19 FEB 2008